

# IAP15 Rec'd PCT/PTO 25 JAN 2

#### PATENT APPLICATION

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No: Q80399

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

In re application of

Masato KOBAYAKAWA, et al.

Appln. No.: 10/591,585

Confirmation No.: 3393

Filed: September 5, 2006

For: GALLIUM NITRIDE-BASED SEMICONDUCTOR DEVICE

SUBMISSION OF EXECUTED DECLARATION

**MAIL STOP PCT** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In view of the application filed on September 5, 2006 without the appropriate executed documents, and since Applicant's attorney has not yet received the "Notification of Missing Requirements Under 35 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US)," for the above application, Applicant submits herewith a copy of the Declaration (four (4) pages) for the above identified application properly executed by the inventors.

A check for the statutory fee of \$130.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

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23373
CUSTOMER NUMBER

Date: January 25, 2007

Respectfully submitted,

Abraham J. Rosner

Registration No. 33,276



## Declaration and Power of Attorney for Patent Application

特許出願宣言書及び委任状

### Japanese Language Declaration

日本語宣言書

| 私は、以下に記名された発明者として、ここに下記の通り宣言する。                                                                                                | As a below named inventor, I hereby declare that:                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 私の住所、郵便の宛先及び国籍は、私の氏名の後に記載された通りである。                                                                                             | My residence, post office address and citizenship are as stated next to my name,                                                                                                                                                                                      |
| 下記の名称の発明について、特許請求範囲に記載され、且つ特許が求められている発明主題に関して、私は、最初、最先且つ唯一の発明者である(唯一の氏名が記載されている場合)か、或いは最初、最先且つ共同発明者である(複数の氏名が記載されている場合)と信じている。 | I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled |
|                                                                                                                                | GALLIUM NITRIDE-BASED SEMICONDUCTOR<br>DEVICE                                                                                                                                                                                                                         |
| 上記発明の明細書はここに添付されているが、下記の欄がX<br>印でチェックされている場合は、この限りでない:                                                                         | the specification of which is attached hereto unless the following box is checked:                                                                                                                                                                                    |
| 月      日に出願され、         この出願の米国出願番号またはPCT国際出願番号は、          であり、且つ        月      日に補正された出願(該当する場合)                               | was filed onMarch 3, 2005 as United States Application Number or PCT International Application Number PCT/JP2005/004140 and was amended on (if applicable).                                                                                                           |
| 私は、上記の補正書によって補正された特許請求範囲を含む上記明細書を検討し、且つ内容を理解していることをここに表明する。                                                                    | I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.                                                                                           |
| 私は、連邦規則法典第37編1.56に定義されている特許性に<br>ついて重要な情報を開示する義務があることを認める。                                                                     | I acknowledge the duty to disclose information which is<br>material to patentability as defined in Title 37, Code of<br>Federal Regulations, Section 1.56.                                                                                                            |

#### Japanese Language Declaration

(日本語宣言書)

私は、ここに、下記に記載した外国での特許出願または発明者証の出願、或いは米国以外の少なくとも一カ国を指定している米国法典第35編365条(a)項によるPCT国際出願について、同第119条(a)-(d)項又は第365条(b)項に基づいて優先権を主張するとともに、優先権を主張する本出願の出願日よりも前の出願日を有する外国での特許出願または発明者証の出願、或いはPCT国際出願については、いかなる出願も、下記の枠内をチェックすることにより示した。

I hereby claim foreign priority under Title 35, United States Code, Section 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Applications<br>外国での先行出願                                                                                                                                                                                                                                                     |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Priority Not Claimed<br>優先権主張なし                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2004-060495                                                                                                                                                                                                                                                                                | JAPAN                  | 4 /March / 2004                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 一                                                                                                                                                                                                                                                                                                |
| (Number)                                                                                                                                                                                                                                                                                   | (Country)              | (Day/Month/Year Filed)                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                  |
| (番号)                                                                                                                                                                                                                                                                                       | (国名)                   | (出願日/月/年)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                  |
| (Al                                                                                                                                                                                                                                                                                        |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                  |
| (Number)<br>(番 号)                                                                                                                                                                                                                                                                          | (Country)<br>(国名)      | (Day/Month/Year Filed)<br>(出願日/月/年)                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                            |                        | (14 15 17 77 77 77                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                  |
| (Number)<br>(番 号)                                                                                                                                                                                                                                                                          | (Country)<br>(国名)      | (Day/Month/Year Filed)<br>(出願日/月/年)                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                  |
| 私は、ここに、下記のいかなる米国仮特許出願についても、その米国法<br>典第35編119条(e)項の利益を主張する。                                                                                                                                                                                                                                 |                        | I hereby claim the benefit under I<br>Section 119(e) of any United Statisted below.                                                                                                                                                                                                                                                                                                                                                                                | itle 35, United States Code,<br>tes provisional application(s)                                                                                                                                                                                                                                   |
| (Application No.)                                                                                                                                                                                                                                                                          | (Filing B.A.)          | 60/553,125                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 16 / March / 2004                                                                                                                                                                                                                                                                                |
| (出願番号)                                                                                                                                                                                                                                                                                     | (Filing Date)<br>(出願日) | (Application No.)<br>(出願番号)                                                                                                                                                                                                                                                                                                                                                                                                                                        | (Filing Date)<br>(出願日)                                                                                                                                                                                                                                                                           |
| 私は、ここに、下記のいかなる米国出願についても、その米国<br>法典第35編第120条に基づく利益を主張し、また米国を指定するいかなるPCT国際出願についても、その同第365条(c)に基づく利益を主張する。また、本出願の各特許請求の範囲の主題が、米国法典第35編第112条第1段に規定された態様で、先行する米国出願またはPCT国際出願に開示されていない場合においては、その先行出願の出願日と本国内出願日またはPCT国際出願日との間の期間中に入手された情報で、連邦規則法典第37編規則1.56に定義された特許性に関わる重要な情報について開示義務があることを承認する。 |                        | I hereby claim the benefit of Title 35 120 of any United States applicati International application designatin below and, insofar as the subject me this application is not disclosed in the International application in the me paragraph of Title 35, United Stacknowledge the duty to disclose an material to patentability as defined Regulations, Section 1.56 which be filling date of the prior application International filling date of this application. | on(s), or 365(c) of any PCT g the United States, listed natter of each of the claims of the prior United States or PCT anner provided by the first states Code Section 112, I y material information which is in Title 37, Code of Federal ecame available between the n and the national or PCT |
| (Application No.)<br>(出願番号)                                                                                                                                                                                                                                                                | (Filing Date)<br>(出願日) | (Status: Patented, Pend<br>(現況:特許許可済、6                                                                                                                                                                                                                                                                                                                                                                                                                             | _,                                                                                                                                                                                                                                                                                               |
| (Application No.)<br>(出願番号)                                                                                                                                                                                                                                                                | (Filing Date)<br>(出願日) | (Status: Patented, Pend<br>(現況:特許許可済、{                                                                                                                                                                                                                                                                                                                                                                                                                             | •                                                                                                                                                                                                                                                                                                |

私は、ここに表明された私自身の知識にかかわる陳述が真実であり、且つ情報と信ずることに基づく陳述が、真実であると信じられることを宣言し、さらに、故意に虚偽の陳述などを行った場合は、米国法典第18編第1001条に基づき、間金または拘禁、もしくはその両方により処罰され、またそのような故意による虚偽の陳述は、本出願またはそれに対して発行されるいかなる特許も、その有効性に問題が生ずることを理解した上で、陳述が行われたことを、ここに宣言する。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

### Japanese Language Declaration

(日本語宣言書)

委任状: 私は、本出願を審査する手続きを行い、且つ米国特許商標庁との全ての業務を遂行するために、記名された発明者として、下記の弁護士及び/または弁理士を任命する。(氏名及び登録番号を記載すること)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (list name and registration number)

John H. Mion, Reg. No. 18,879; Robert J. Seas, Jr., Reg. No. 21,092; Darryl Mexic, Reg. No. 23,063; Robert V. Sloan, Reg. No. 22,775; Peter D. Olexy, Reg. No. 24,513; J. Frank Osha, Reg. No. 24,625; Louis Gubinsky, Reg. No. 24,835; Neil B. Siegel, Reg. No. 25,200; David J. Cushing, Reg. No. 28,703; John R. Inge, Reg. No. 26,916; Joseph J. Ruch, Jr., Reg. No. 26,577; Sheldon I. Landsman, Reg. No. 25,430; Richard C. Turner, Reg. No. 29,710; Howard L. Bernstein, Reg. No. 25,665; Alan J. Kasper, Reg. No. 25,426: Kenneth J. Burchfiel, Reg. No. 31,333; Gordon Kit, Reg. No. 30,764; Susan J. Mack, Reg. No. 30,951; Frank L. Bernstein, Reg. No. 31,484; Mark Boland, Reg. No. 32,197; William H. Mandir, Reg. No. 32,156; Brian W. Hannon, Reg. No. 32,778; Abraham J. Rosner, Reg. No. 33,276; Bruce E. Kramer, Reg. No. 33,725; Paul F. Neils, Reg. No. 33,102; Brett S. Sylvester, Reg. No. 32,765; Robert M. Masters, Reg. No. 35,603; George F. Lehnigk, Reg. No. 36,359; John T. Callahan, Reg. No. 32,607; Steven M. Gruskin, Reg. No. 36,818; Peter A. McKenna, Reg. 38,551 and Edward F. Kenehan, Jr., Reg. 28,962

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| Full name of sole or first in            | nventor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 唯一又は第一発明者名                               | Masato KOBAYAKAWA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |
| Inventor's signature                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Date                           |
| 発明者の署名                                   | Masato Kohayakawa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <sup>日付</sup> January 18, 2007 |
| Residence                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |
| 住所                                       | Ichihara-shi, Chiba, JAPAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |
| Citizenship                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |
| 国籍                                       | JAPAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                |
| Post office address                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |
| 郵便の宛先                                    | c/o SHOWA DENKO K.K.<br>5-1, Yawata Kaigan dori, Ichihara-shi, Chi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ba 290-0067, JAPAN             |
| Full name of second joint<br>第二共同発明者名(該当 | ' ' HIGGEL TOMOZAMA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| Second inventor's signatu                | re                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Date                           |
| 第二発明者の署名                                 | Hidehi Tomozawa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <sup>日付</sup> January 18, 2007 |
| Residence                                | THE STATE OF THE S |                                |
| 住所                                       | Ichihara-shi, Chiba, JAPAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |
| Citizenship                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                |
| 国籍                                       | JAPAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                |
| Post office address                      | c/o SHOWA DENKO K.K.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                |
| 郵 便 の宛 先                                 | 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | a 290-0067, JAPAN              |

(第三以降の共同発明者についても同様に記載し、署名をすること。)

(Supply similar information and signature for third and subsequent joint inventors.)

# Japanese Language Declaration (日本語宣言書)

| Full name of third joint invent<br>第三共同発明者名 (該当する | or, if any<br><sup>5場合)</sup> Hisayuki MIKI                      |                                           |
|---------------------------------------------------|------------------------------------------------------------------|-------------------------------------------|
| Tished in                                         | i iisayuki iviiki                                                |                                           |
| Third inventor's signature<br>第三発明者の署名            | Hisavaki Miki                                                    | Date<br><sup>目付</sup><br>January 18, 2007 |
| Residence<br>住所                                   | Ichihara-shi, Chiba, JAPA                                        | N                                         |
| Citizenship<br>国籍                                 | JAPAN                                                            |                                           |
|                                                   | c/o SHOWA DENKO K.K.<br>5-1, Yawata Kaigan dori, Ichihara-shi, ( | Chiba 290-0067, JAPAN                     |
| Full name of fourth joint inver<br>第四共同発明者名 (該当する | ntor, if any<br>5場合)                                             |                                           |
| Fourth inventor's signature<br>第四発明者の署名           |                                                                  | Date<br>日 付                               |
| Residence<br>住所                                   |                                                                  |                                           |
| Citizenship<br>国籍                                 |                                                                  |                                           |
| Post office address<br>郵便の宛先                      |                                                                  |                                           |
| Full name of fifth joint invento<br>第五共同発明者名(該当する | or, if any<br>5場合)                                               |                                           |
| Fifth inventor's signature<br>第五発明者の署名            |                                                                  | Date<br>日付                                |
| Residence<br>住所                                   |                                                                  |                                           |
| Citizenship<br>国籍                                 |                                                                  |                                           |
| Post office address<br>郵便の宛先                      |                                                                  |                                           |
| Full name of sixth joint invent<br>第六共同発明者名 (該当する | ior, if any<br>5場合)                                              |                                           |
| Sixth inventor's signature<br>第六発明者の署名            |                                                                  | Date<br>日 付                               |
| Residence<br>住所                                   |                                                                  |                                           |
| Citizenship<br>国籍                                 |                                                                  |                                           |
| Post office address<br>郵便の宛先                      |                                                                  |                                           |